UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
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ART UNIT	PAPER NUMBER
2619	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>12/21/2007</u>.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-25</u> is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>1-25</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some *   c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   The amendment filed on 12/21/2007 has been considered and is effective to
overcome Droms et al. reference. Therefore the rejection of claims 1-25 communicated
via office action of 09/12/2007 has been withdrawn. However a new ground(s) of
rejection has been made in this office action in view of Droms et al and newly found
references Donaldson and Fan et al. Rejection follows.

2.   Claims 1- 25 is pending in the application.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all
obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over
Droms et al [US Pat: 7,143,435] in view of Donaldson [US Pat: 7,249,175].

Regarding claim 1, Droms et al in the invention of "Method and Apparatus for Registering Auto-Configured Network Addresses Based on Connection Authentication" disclosed a method of developing an access control list, comprising: developing an enhanced access control list **(item 146 of Fig 1)** including data related to at least one of user names **(user groups),** DNS names, Windows domain names, and physical addresses **(col 8, lines 30-62)**; DNS names into corresponding IP addresses according to data in the enhanced access control list **(col 9, lines 1-27)**; and physical addresses **(MAC address)** into IP addresses according to data in the enhanced access control list **(col 10, lines 16-32, col 12, lines 21-32)**; and developing the access control list from each of the operations of converting **(col 9, lines 14-27),** but fails to disclose converting at least one of user names into corresponding IP address. However, Donaldson in the invention of "Method and System for Blocking E-Mail having a Nonexistent Sender Address" disclosed a method for converting user names into corresponding IP addresses **(Fig 8, col 13, lines 17-33).**

Therefore it would have been obvious for one of the ordinary skill in the art at the time the invention of made to include the method of converting user names into corresponding IP address as taught by Donaldson in the system of Droms et al to covert user names and physical addresses into IP addresses. One is motivated as such in order to determine an IP address with minimum latency to route an information packet based on user name and physical address.

Regarding claim 2, Droms et al disclosed storing the user names and corresponding IP addresses in a mapping state database that defines current

relationships among user names **(col 7, lines 24-35),** DNS names, domain names **(col 12, lines 21-32),** and physical addresses **(col 11, lines 20-28).**

Regarding claims 3, 11, Droms et al disclosed that each physical address comprises a MAC address **(col 10, lines 16-23)**.

Regarding claims 4, 13, Droms et al disclosed that converting user names into corresponding IP and physical addresses according to data in the enhanced access control list comprises: detecting login packets **(authentication, user ID and password)** being communicated over the network; determining a MAC address from the login packets **(col 2, lines 17-25);** detecting server message block login packets being communicated over the network **(col 2, lines 25-37)**; and determining an IP address from the server message block login packets; and developing records in the access control list using the obtained IP address for the respective user name **(col 2, lines 38-52, col 8, lines 30-62)**.

Regarding claims 5-6,13-14, Droms et al disclosed converting DNS names into corresponding IP addresses according to data in the enhanced access control list comprises: detecting packets having an unknown source IP address **(col 9, lines 14-24)**; generating a DNS name query using the source IP address **(col 9, lines 24-27)**; receiving a DNS name associated with the IP address responsive to the query; and developing records in the access control list using the obtained IP address for the respective DNS name **(col 8, lines 30-62)** and occasionally generating new DNS name queries for the source IP address and thereafter repeating the operations of receiving and developing to update the access control list **(col 12, lines 21-33)..**

Regarding claims 7, 15, Droms et al disclosed occasionally receiving the DNS name associated with the IP address and thereafter repeating the operation of developing to update the access control list **(col 12, lines 66-67, col 13,lines 1-9).**

Regarding claims 8,17, Droms et al disclosed converting physical addresses into IP addresses according to data in the enhanced access control list comprises: monitoring DHCP packets communicated over the network **(col 13,lines 10-15)**; obtaining an IP address assigned to a particular physical address from the monitored DHCP packets **(col 11, lines 20-24)**; and developing records in the access control list using the obtained IP address assigned to a respective physical address **(col 11, lines 25-36)**.

Regarding claims 9-10, Droms et al disclosed a method of controlling access of a user to a network including a plurality of hosts coupled together through a network switch **(item 102 of Fig 1)**, the method comprising: storing in the network switch an enhanced access control list containing data related to at least one of user names **(user groups, col 7, lines 24-35)**, DNS names, Windows domain names, and physical addresses **(col 11, lines 20-28, col 12, lines 28-31)**; and generating a dynamic access control list from the enhanced access control list, the dynamic access control list containing a plurality of IP addresses that restrict access of the user to the network **(col 16, lines 21-32)** and mapping user names to physical addresses; mapping physical addresses to IP addresses **(col 10, lines 16-32)**; mapping unknown IP addresses to physical addresses; and mapping unknown IP addresses to DNS names **(col 8, lines 30-62)**; and applying rules set forth in the enhanced access control list relating to

controlling access of a user to the addresses determined by the operations of mapping to generate the access control list **(col 9, lines 9-27),** but fails to disclose mapping user names to IP addresses.

However, Donaldson disclosed a method for converting user names into corresponding IP addresses **(Fig 8, col 13, lines 17-33).**

Therefore it would have been obvious for one of the ordinary skill in the art at the time the invention of made to include the method of converting user names into corresponding IP address as taught by Donaldson in the system of Droms et al to covert user names and physical addresses into IP addresses. One is motivated as such in order to determine an IP address with minimum latency to route an information packet based on user name and physical address.

Regarding claims 12, 16, Droms et al disclosed that the mapping user names to IP addresses comprises: detecting server message block login packets being communicated over the network **(col 12, lines 50-67)**; and determining an IP address from the server message block login packets and mapping unknown IP addresses to physical addresses comprises detecting packets having an unknown source IP address **(col 13, lines 1-18).**

5.   Claims 18-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Droms et al [US Pat: 7,143,435] in view of Fan et al [US Pat: 6,219,706].

Regarding claims 18, 22, Droms et al disclosed a network switching circuit **(Figs 1-2,6),** comprising: a forwarding circuit **(item 103 of Fig 1)** operable to detect specific

received packets and to provide the specific packets on a processor port **(item 104a of Figs 1,6, col 7, lines 10-25, col 17, lines 5-27)**, and further operable to receive packets on one of a plurality of ports including the processor port **(items 104 of Fig 1)** and to forward each received packet to a port corresponding to a destination address contained in the packet subject to access restrictions contained in a dynamic access control list **(col 9, lines 9-23)**; a memory circuit **(item 606 of Fig 6)** coupled to the forwarding circuit **(item 142 of Fig 1, col 9, lines 9-28)**, the memory circuit operable to store packets and operable to store an enhanced access control list and a dynamic access control list; and a processor **(item 604 of Fig 6)** coupled to the forwarding circuit and to the memory circuit **(col 7, lines 25-64)** the processor operable to define the specific packets detected by the forwarding circuit and operable to process the specific packets stored in the memory circuit using the enhanced access control list to generate the dynamic access control list **(col 10, lines 28-57)**, but fails to disclose storing the dynamic access control list in the memory circuit, and further operable to provide the specific packets to the processor port of the forwarding circuit after processing the packets. However, Fan et al in the invention of "Access Control for Networks" disclosed a method to storing, updating and generating the dynamic access control list **(ACL, col 13, lines 11-25)** in the memory circuit **(item 261 of Fig 2)** based up on the type of application and protocol **(col 2, lines 51-65)** to provide specific packets to the processor port **(item 263 of Fig 2)** of the forwarding circuit after processing the packets **(col 6, lines 1-10, Fig 2)**.

Therefore it would have been obvious for one of the ordinary skill in the art at the time the invention of made to include the method of storing, updating and generating the dynamic access control list in the memory circuit based up on the type of application and protocol to provide specific packets to the processor port of the forwarding circuit after processing the packets as taught by Fan et al in the system of Droms et al store the dynamic access control list in the memory circuit, and further operable to provide the specific packets to the processor port of the forwarding circuit after processing the packets. One is motivated as such in order to store, update and generate dynamic access control list in the memory circuit based up on the type of application to forward specific packets to the processor to efficiently process and route packets to destination ports.

Regarding claims 12, 16, Droms et al disclosed that the mapping user names to IP addresses comprises: detecting server message block login packets being communicated over the network **(col 12, lines 50-67)**; and determining an IP address from the server message block login packets and mapping unknown IP addresses to physical addresses comprises detecting packets having an unknown source IP address **(col 13, lines 1-18).**

Regarding claim 19, Droms et al disclosed that the processor further comprises a direct memory access controller coupled between the forwarding engine and the memory **(col 10, lines 40-57).**

Regarding claims 20, 24, Droms et al disclosed the switch comprises an Ethernet switch and wherein the packets comprise Ethernet packets **(col 6, lines 41-45).**

Regarding claims 21, 25, Droms et al disclosed wherein the enhanced access control list comprises user names **(col 7, lines 24-35, col 8, lines 30-62)**, DNS names **(col 12, lines 21-32)**, Windows domain names, and physical addresses **(col 11, lines 20-28)**.

Regarding claim 23, Droms et al disclosed at least some of the hosts comprise personal computer systems **(col 6, lines 5-10, Fig 6).**

Response to Arguments

6.   Applicant's argument, see remarks, filed on 12/21/2007, with respect to rejection of claims 1-25 have been fully considered and are persuasive. Therefore the rejection of claims 1-25 communicated via office action of 09/12/2007 has been withdrawn.

Conclusion

7.   Any inquiry concerning this communication or earlier communications should be directed to the attention to Venkatesh Haliyur whose phone number is 571-272-8616. The examiner can normally be reached on Monday-Friday from 9:00AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached @ (571)-272-7884. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (571)-272-2600 or fax to 571-273-8300.

8.   Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197(toll-free).

/Venkatesh Haliyur/

Examiner, Art Unit 2619

/Edan Orgad/

Supervisory Patent Examiner, Art Unit 2619